MIAMI-SOUTH FLORIDA
National Weather Service
Forecast Office
http://www.weather.gov/miami

September 2015 Weather Summary

Near to Above Normal Rainfall

Drought Conditions End

October 5, 2015: Rainfall more typical of the rainy season finally made its appearance in southeast Florida as most stations recorded near to above normal rainfall for the first time this wet season. Interior sections south of Lake Okeechobee recorded above normal rainfall, with areas around Lake Okeechobee to the Gulf coast mostly near to slightly below normal (Figures 1 and 2).

Precipitation

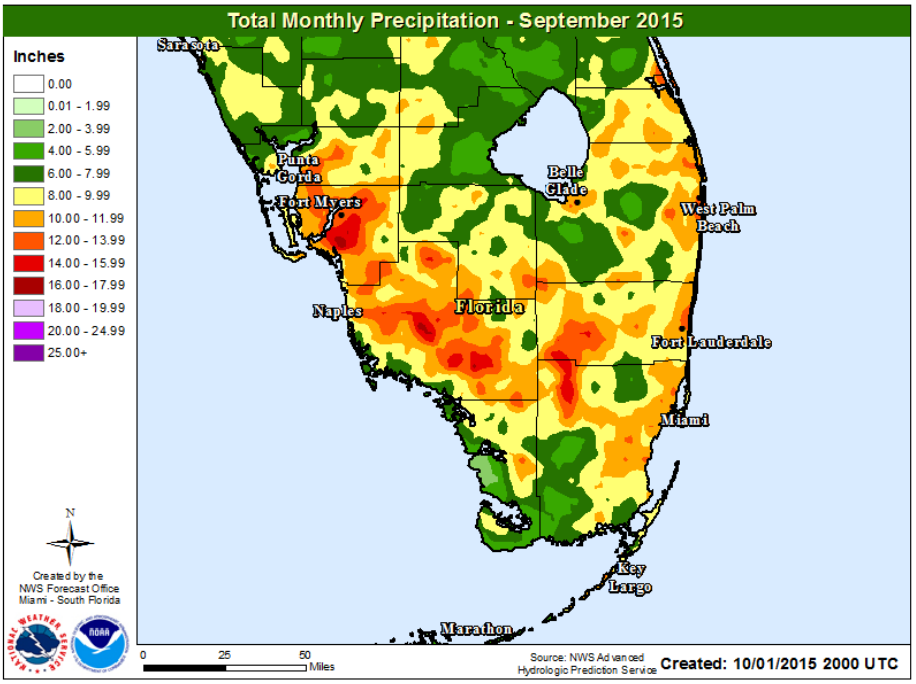
After a wetter August, the near to above normal rainfall in September led to the end of drought conditions across southeast Florida. Most of southeast Florida recorded over 10 inches of rain, with a maximum of 15.01 inches at Fort Lauderdale Beach (more than the past 5 months combined at that location). By contrast, the lowest measured rainfall of 5.65 inches in Moore Haven was still very close to normal for September.

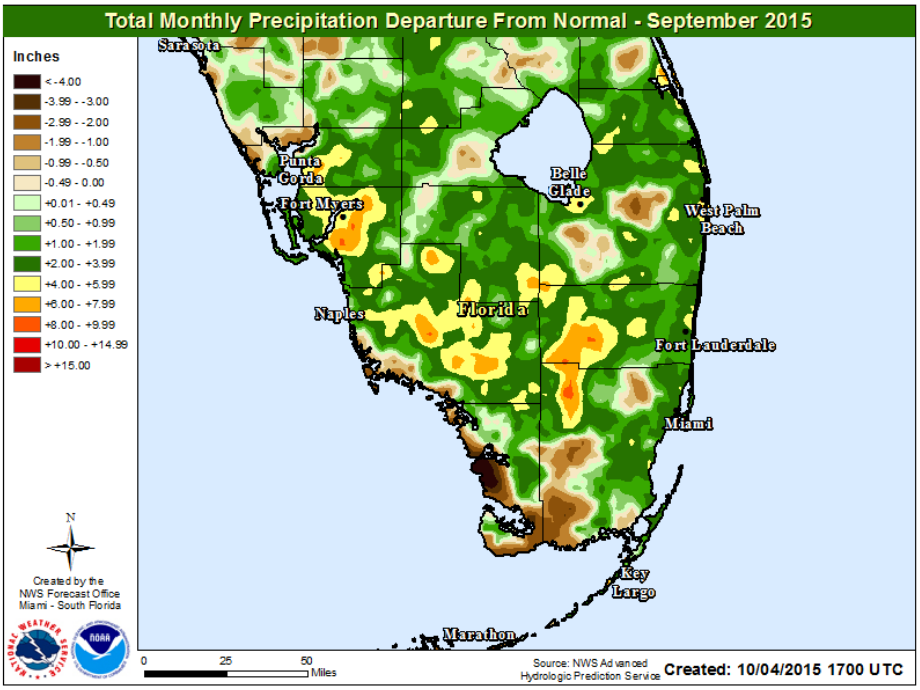
The prevailing weather pattern for September was a low pressure area in the middle to upper levels of the atmosphere over the southeast U.S. and the Gulf of Mexico (Figure 3), causing southwest winds and associated moisture to move across Florida. This is the opposite of the pattern observed much of the summer which was a high pressure area over the southeast U.S. and western Atlantic.

Below is a table of September rainfall, departure from normal and historical rank:

Location (Beginning of Period of Record)	September 2015 Rainfall (inches)	Departure from Normal/Rank
Big Cypress	**9.49**	
Brighton Reservation (Glades Co.)	**8.05**	
Cape Florida	**10.75**	
Canal Point (1941)	**9.91**	**+3.06**
Fort Lauderdale/Hollywood Int'l (1912)	**10.10**	**+1.51**
Fort Lauderdale Dixie Water Plant	**10.58**	**+1.13**
Fort Lauderdale Beach	**15.10**	
Fort Lauderdale Executive Airport	**12.49**	
Hialeah (1940)	**8.99**	**-1.82**
Hollywood (1963)	**9.68**	**+1.09**
Homestead General Airport (1990)	**13.34**	
Immokalee (1971)	**10.85**	**+4.67/4th wettest**
Juno Beach	**11.97**	
LaBelle (1929)	**7.00**	**-0.07**
Marco Island	**8.79**	
Miami Beach (1928)	**12.85**	**+4.97/7th wettest**
Miami International Airport (1911)	**9.97**	**+0.11**
Moore Haven (1918)	**5.65**	**-0.17**
Muse	**7.94**	
North Miami Beach	**12.92**	
Naples East	**13.22**	
Naples Municipal Airport (1942)	**6.75**	**-0.94**
NWS Miami	**10.94**	
Oasis Ranger Station (1979)	**9.71**	**+1.64**
Opa-Locka Airport	**11.10**	
Ortona (1940)	**5.94**	**-1.25**
Palm Beach Gardens	**7.28**	
Palm Beach International Airport (1888)	**8.42**	**+0.07**
Pembroke Pines – North Perry Airport	**8.43**	
Pompano Beach Airpark	**9.79**	

Tamiami Airport – West Kendall	**13.59**	
The Redland (1942)	**14.01**	**+5.02/6th wettest**
South Bay (15S)	**7.42**	





***Figures 1 and 2**: September precipitation and departure from normal*

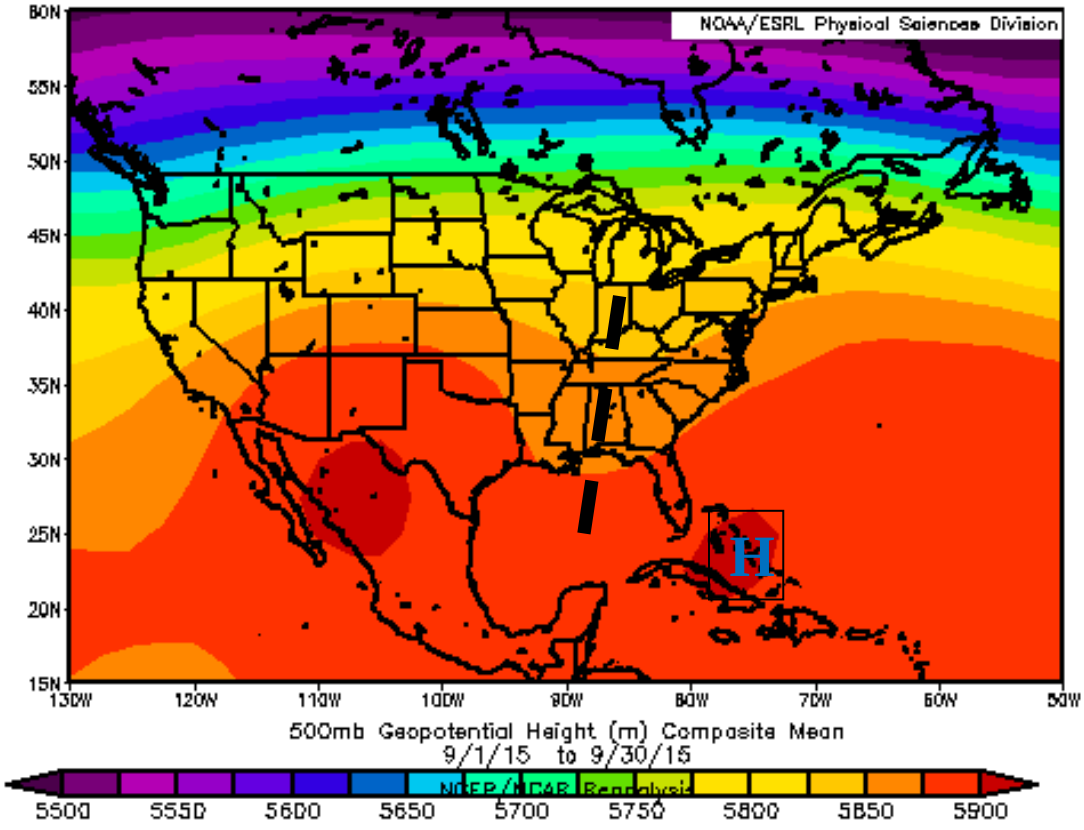


***Figure 3**: Mean mid-tropospheric (500 mb) heights for September, with southwest winds between low pressure in the SE U.S. and Gulf of Mexico (dashed black line) and high pressure over the Bahamas leading to higher moisture across Florida.*

Temperatures

Despite the increased rainfall across the area, September temperatures were near to above normal. The most notable departure from normal was at Naples where temperatures averaged a full degree above normal, mainly as a result of onshore winds keeping minimum temperatures almost 2 degrees above normal.

- ***Miami International Airport*** had an average September temperature of 83.3 degrees Fahrenheit. This is 0.4 degrees above the 30-year normal and ranks as the 10th warmest September on record. The hottest temperature was 94 degrees on the 4th and the coolest was 73 on the 22nd.

- ***Palm Beach International Airport*** had an average September temperature of 81.9 degrees Fahrenheit. This is 0.1 degrees above the 30-year normal. The hottest temperature was 93 degrees on the 13th and the coolest was 72 on the 7th and 18th.

- ***Fort Lauderdale/Hollywood International Airport*** had an average September temperature of 82.8 degrees Fahrenheit. This is 0.4 degrees below the 30-year normal. The hottest temperature was 93 degrees on the 4th and 13th and the coolest was 73 on the 4th and 15th.

- ***Naples Municipal Airport*** had an average September temperature of 83.4 degrees Fahrenheit. This is 1.0 degrees above the 30-year normal and ranks as the 6th warmest September on record. The hottest temperature was 95 degrees on the 14th and the coolest was 75 on the 24th, 25th and 26th.

Severe Weather

The first week of September was fairly active, especially across metro southeast Florida, as an upper level low pressure area in the Gulf of Mexico produced several episodes of strong to severe thunderstorms and localized flooding from the 4th through the 8th (including Labor Day Weekend). Main impacts of these storms were downed trees and flooded streets. Lightning was a factor on the 8th, 10th and 11th with reported injuries and property damage in Palm Beach County from lightning strikes. The next big weather event was in the middle of the month from the 16th to the 18th as another upper level low pressure area over the southeast United States, combined with a strong flow of moisture from the east, led to strong to severe storms. A tornado affected parts of Davie and Southwest Ranches in Broward County on the 16th, producing many downed trees and broken tree branches.

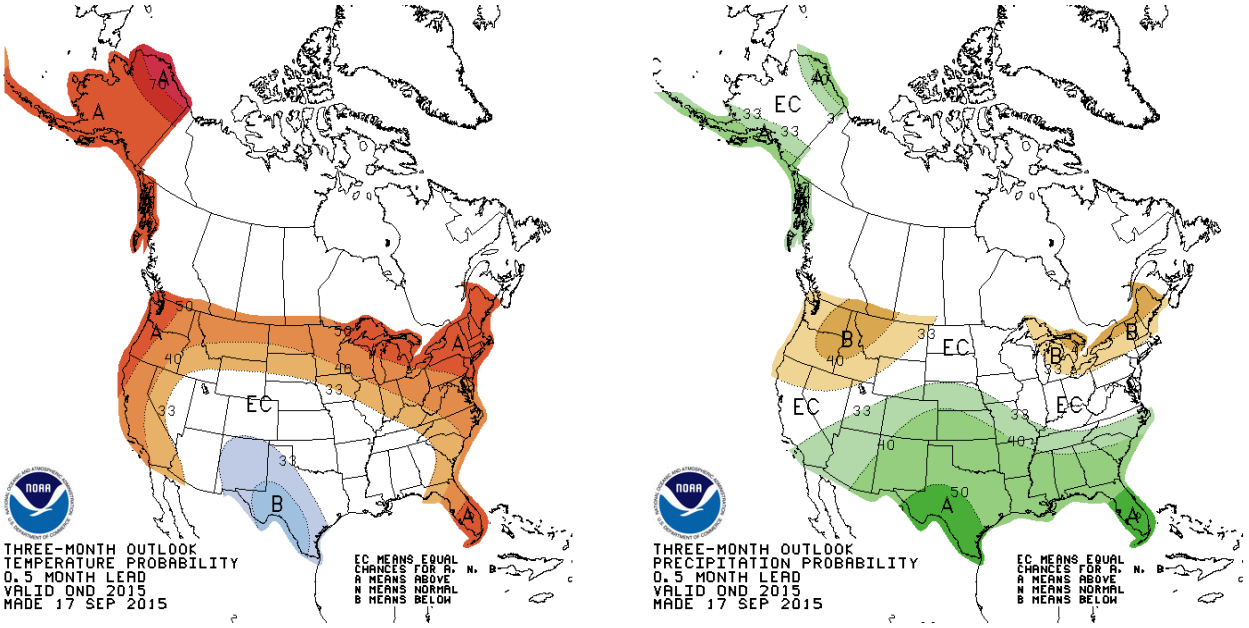
Outlook for October to December

Latest outlooks by the NOAA Climate Prediction Center (CPC, Figures 4 and 5) are for an increased likelihood of above normal precipitation for the October to December period. Although the dry season is expected to be in full swing by the latter part of this period, the current El Niño episode is expected to peak during this period and contribute to the potential for increased rainfall compared to normal.

The CPC outlook for October to December also calls for the likelihood of above normal temperatures as any cooling effects triggered by El Niño are usually not noticed until the winter months.

A full outlook for the dry season (November through April) will be released in mid-October.

For the latest south Florida weather information, including the latest watches, advisories and warnings, please visit the National Weather Service Miami Forecast Office's web site at weather.gov/southflorida.



***Figures 4 and 5**: October-December temperature probability (left) and precipitation probability (right) from NOAA's Climate Prediction Center (CPC).*